

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.-20. (canceled)

21. (new) A module for coupling a telephone device to at least one time-domain multiplexed digitized voice channel carried over a wiring having at least two conductors, the module comprising:

a modem operative to couple to the signal carried over the wiring;

selective means coupled to said modem and operative to pass a first voice channel;

a subscriber line interface coupled to said selective means and operative to convert said first voice channel to a first analog telephone signal; and

a first telephone connector coupled to said subscriber line interface and couplable to a telephone device to couple the telephone device to said first analog telephone signal.

22. (new) The module according to claim 21, wherein at least part of the wiring is existing wiring in a building.

23.(new) The module according to claim 22, wherein the wiring is used to concurrently carrying a service signal.

24.(new) The module according to claim 23, wherein the wiring is a telephone wiring.

25.(new) The module according to claim 22, wherein the module is attachable to a wall.

26.(new) The module according to claim 25, wherein the module is at least in part housed within an outlet.

27.(new) The module according to claim 21 wherein the wiring concurrently carries a frequency domain multiplexed second analog telephone signal in a telephone band, and the module further comprises:

a frequency selective means couplable to the wiring and operative to pass the said second analog telephone signal; and

a second telephone connector coupled to said frequency selective means for coupling a telephone device to said second analog telephone signal.

28.(new) The module according to claim 21, wherein the multiplexed digitized voice channels carry Pulse Code Modulation (PCM) signals.

29.(new) The module according to claim 21, wherein the wiring further carry data signals, and the module further comprises a data connector operative to couple the data signals to a data unit.

30.(new) A module for coupling at least one telephone service signal to at least one time-domain multiplexed digitized voice channel carried over a wiring having at least two conductors, the module comprising:

at least one exchange line interface couplable to said at least one telephone service signal, and operative to convert said at least one telephone service signal to a digitized service signal ,

a modem coupled to said at least one exchange line interface and operative to couple said digitized service signal to the signal carried over the wiring.

31.(new) The module according to claim 30, wherein the module is used for coupling multiple service signals to multiple time-domain multiplexed digitized voice channels carried over the wiring, and wherein the module further comprising selective means coupled to said modem and to said at least one exchange line interface and operative to selectively couple said multiple digitized voice channels carried over the wiring to said digitized service channels.

32.(new) The module according to claim 30, wherein at least part of the wiring is existing wiring in a building.

33.(new) The module according to claim 32, wherein the wiring is used to concurrently carrying a service signal.

34.(new) The module according to claim 33, wherein the wiring is a telephone wiring.

35.(new) The module according to claim 32, wherein the module is attachable to a wall.

36.(new) The module according to claim 35, wherein the module is at least in part housed within an outlet.

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~~38.~~ (new) The module according to claim 30, wherein the wiring concurrently carries a frequency domain multiplexed analog telephone signal in a telephone band, and the module further comprises:

a connection means for coupling to an analog telephone service; and

a frequency selective means coupled to said connection means and couplable to the wiring, and operative to pass the analog telephone signal.

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~~39.~~ (new) The module according to claim 30, wherein the multiplexed digitized voice channels carry Pulse Code Modulation (PCM) signals.

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~~40.~~ (new) The module according to claim 30, wherein the wiring further carry data signals, and the module further comprises a data connector operative to couple the data signals to a data unit.

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~~41.~~ (new) A network for coupling at least one telephone service signal to at least one telephone device over a wiring, the network comprises:

a wiring having at least two conductors for carrying multiple time-domain multiplexed digitized voice channels;

an exchange side device coupled to the wiring and operative to couple at least one telephone service signal to at least one digitized voice channel; and

at least one subscriber side device coupled to the wiring and operative to couple the at least one telephone device to at least one digitized voice channel.

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~~42~~. (new) The network according to claim ⁴⁰~~41~~, wherein at least part of the wiring is in a building.

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~~43~~. (new) The network according to claim ⁴¹~~42~~, wherein the wiring is used to concurrently carrying a service signal.

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~~44~~. (new) The network according to claim ⁴²~~43~~, wherein the wiring is a telephone wiring.

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~~45~~. (new) The network according to claim ⁴¹~~42~~, wherein the at least one subscriber side device is attachable to a wall.

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~~46~~. (new) The network according to claim ⁴⁴~~45~~, wherein the at least one subscriber side device is at least in part housed within an outlet.

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~~47~~. (new) The network according to claim ⁴⁰~~41~~, wherein the wiring concurrently carries a frequency domain multiplexed analog telephone signal in a telephone band, and wherein the at least one subscriber side device is operative to couple the at least one telephone device to said analog telephone signal.

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~~48~~. (new) The network according to claim ⁴⁰~~41~~, wherein the multiplexed digitized voice channels are carry Pulse Code Modulation (PCM) signals.

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~~49~~. (new) The network according to claim ⁴⁰~~41~~, wherein the network is connected to at least two distinct telephone service providers.

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~~50~~. (new) The network according to claim ⁴⁰~~41~~, further comprising a plurality of subscriber side devices, each coupled to the wiring in a distinct connection point.

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~~51~~. (new) A method for upgrading existing wiring in a building having at least two conductors to allow for coupling at least one telephone service signal to at least one telephone device over the wiring, the method comprising the steps of:

coupling an exchange side device to the wiring, the exchange side device being operative to couple at least one telephone service signal to a digitized voice channel; and

coupling at least one subscriber side device to the wiring, the subscriber side device being operative to couple at least one telephone device to the digitized voice channel;

wherein the wiring is operative to carry multiple time-domain multiplexed digitized voice channels.

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~~52~~.(new) The method according to claim ⁵⁰~~51~~, wherein there are at least two subscriber side devices, each coupled to the wiring at a respectively different connection point.

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~~53~~.(new) The method according to claim ⁵¹~~52~~, wherein the wiring is used to concurrently carrying a service signal.

⁵³
~~54~~.(new) The method according to claim ⁵²~~53~~, wherein the wiring is a telephone wiring.

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~~55~~.(new) The method according to claim ⁵¹~~52~~, wherein the at least one subscriber side device is attachable to a wall.

~~56~~⁵⁵.(new) The method according to claim ~~55~~⁵⁴, wherein the at least one subscriber side device is at least in part housed within an outlet.

~~57~~⁵⁶.(new) The method according to claim ~~51~~⁵⁰ wherein the wiring concurrently carries a frequency domain multiplexed analog telephone signal in a telephone band, and wherein the at least one subscriber side device is operative to couple a telephone device to said analog telephone signal.

~~58~~⁵⁷.(new) The method according to claim ~~51~~⁵⁰, wherein the multiplexed digitized voice channels carry Pulse Code Modulation (PCM) signals.

~~59~~⁵⁸.(new) The method according to claim ~~51~~⁵⁰, further comprising the step of connecting at least two distinct telephone service providers to the exchange side device.

~~60~~⁵⁹.(new) For use with first and second wiring segments, each segment having at least two conductors and each segment carrying a plurality of time-domain multiplexed digitized voice channels, a module for coupling a telephone device to said wiring segments, the module comprising:

first and second modems each couplable to a respective one of said first and second wiring segments and each operative to couple to a respective one of the signals carried over the first and second wiring;

selective means coupled to said first and second modems and operative to select one voice channel ;

a subscriber line interface coupled to said selective means and operative to convert said one voice channel to a first analog telephone interface; and

a first telephone connector coupled to said subscriber line interface and operative to couple the telephone device to said first analog telephone interface.

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~~61~~. (new) The module according to claim ⁵⁹~~60~~, wherein at least part of one of said wiring segments is existing wiring in a building.

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~~62~~. (new) The module according to claim ⁶⁰~~61~~, wherein at least one of said wiring segments is used to concurrently carrying a service signal.

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~~63~~. (new) The module according to claim ⁵⁹~~60~~, wherein at least one of said wiring segments is a telephone wiring.

~~63~~
~~64~~.(new) The module according to claim ~~61~~⁶³, wherein the module is attachable to a wall.

~~64~~
~~65~~.(new) The module according to claim ~~64~~⁶³, wherein the module is at least in part housed within an outlet.

~~65~~
~~66~~.(new) The module according to claim ~~60~~⁵⁹, wherein at least one of said wiring segments concurrently carries a frequency domain multiplexed second analog telephone signal in a telephone band, and the module further comprises:

a frequency selective means couplable to the wiring and operative to isolate said second analog telephone signal; and

a second telephone connector coupled to said frequency selective means and operative to couple a telephone device to said second analog telephone signal.

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~~67~~.(new) The module according to claim ~~60~~⁵⁹, wherein the multiplexed digitized voice channels carry Pulse Code Modulation (PCM) signals.

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~~68~~.(new) The module according to claim ~~60~~⁵⁹, wherein at least one of said wiring segments further carries data signals, and the module further comprises a data connector operative to couple a data unit to the data signals.

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~~69~~. (new) A network for carrying multiple voice channel over a wiring, the network comprising:

at least two wiring segments, each segment having at least two conductors and each segment carrying at least one time-domain multiplexed digitized voice channel;

wherein each wiring segment connects two coupling devices, each coupling device being couplable to at least one telephone device, and being operative to couple the at least one telephone device to at least one digitized voice channel carried over the respectively connected wiring segment; and

at least one coupling device is connected to at least two wiring segments.

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~~70~~. (new) The network according to claim ⁶⁸~~69~~, wherein the at least one coupling device connected to at least two wiring segments transports at least one time-domain multiplexed digitized voice channel from one wiring segment to another wiring segment connected thereto.

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~~71~~. (new) The network according to claim ⁶⁸~~69~~, wherein at least part of at least one of the wiring segments is in a building.

~~71~~⁷¹. (new) The network according to claim ~~69~~⁶⁸, wherein at least one of the wiring segments is used to concurrently carrying a service signal.

~~72~~⁷². (new) The network according to claim ~~72~~⁷¹, wherein at least one of the wiring segments is a telephone wiring.

~~73~~⁷³. (new) The network according to claim ~~73~~⁷², wherein the at least one device is attachable to a wall.

~~74~~⁷⁴. (new) The network according to claim ~~74~~⁷³, wherein the at least one device is at least in part housed within an outlet.

~~75~~⁷⁵. (new) The network according to claim ~~69~~⁶⁸, wherein at least one of the wiring segments concurrently carries a frequency domain multiplexed analog telephone signal in a telephone band, and wherein at least one of the coupling devices is operative to couple an associated telephone device to said analog telephone signal.

~~76~~⁷⁶. (new) The network according to claim ~~69~~⁶⁸, wherein the multiplexed digitized voice channels carry Pulse Code Modulation (PCM) channels.

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~~78~~.(new) The network according to claim ⁶⁸~~69~~, wherein the network is further coupled to at least one telephone service signal.

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~~79~~.(new) The network according to claim ⁷⁷~~78~~, wherein the network is connected to at least two distinct telephone service providers.